

miles from donor to recipient each time. Patients who have a significant post-transfusion increment clearly benefit from platelet transfusions. There are, however, conflicting opinions and little evidence concerning the value of platelet transfusions in patients with ITP or allo-immunization sufficient to block any post-transfusion rise in platelet count. Nevertheless, in the presence of significant bleeding in either of those two problem cases, most hematologists would probably attempt a trial of platelet transfusions. Although compatible platelets could stop the bleeding in the allo-immune patient, to date there have been no platelet donors known to be compatible with ITP antiplatelet factors. Finally, the rules of immunogenetics have also been applied to iso-immune neonatal thrombocytopenic purpura, with plateletpheresis of the mother providing an excellent source of compatible platelets to protect the infant until his own platelets have recovered from the insult of the transplacentally acquired maternal antiplatelet antibodies.

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Platelet Storage

Recent advances in techniques of processing platelets for transfusion have extended the blood bank storage life of this valuable blood product from approximately six hours to almost 72 hours. The significance of this prolongation of shelf life is that blood banks are now capable of providing platelet units at any time, day or night, without having to call in new donors. Blood collected during regular donor hours is drawn into a closed system of several interconnecting bags made of new plastics with ACD or CPD anticoagulant. Because platelets are sensitive to low temperatures, the freshly drawn unit of whole blood must be immediately centrifuged at room temperature (22°C). The packed red cells, after separation from the platelet-rich plasma (PRP), can then be kept at the standard 4°C blood storage temperature. (Logistically, the two-temperature require-

ment means that blood drawn in bloodmobiles and kept refrigerated in transit back to the processing center is far less suitable for extraction of platelets than is blood drawn at the center itself.) The PRP can be further centrifuged, again at 22°C, to provide a platelet concentrate (PC) with approximately 75 percent of the platelets of the original 500 ml of blood now in a volume of 15 to 50 ml. With no further additives or manipulations, the PC is stored at room temperature, with gentle agitation. The PC is then immediately available when needed for transfusion. The advantage of ready availability greatly outweighs the small loss of effectiveness incurred during the first three days of room temperature storage of PC. Techniques for more prolonged storage of platelets, either by freezing or by use of new additives, are currently under investigation in a number of laboratories.

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Reed-Sternberg Cells in Non-Hodgkin's Disease

Reed-Sternberg cells (RSC) are not pathognomonic for Hodgkin's disease, but the diagnosis of Hodgkin's disease is not made in their absence. Recent reports confirm a previous, but seldom emphasized, observation that Reed-Sternberg cells mean Hodgkin's disease only when they are in association with the proper histopathologic background features, or milieu, of one of the sub-types of Hodgkin's disease.

Multinucleated cells resembling Reed-Sternberg cells have been described in a variety of reactive and neoplastic proliferations. A striking example is the presence of multinucleated cells, which may be indistinguishable from the diagnostic cells of Hodgkin's disease, in lymphoid tissue from persons with infectious mononucleosis. The cellular proliferation in tissue in infectious mononucleosis is predominantly that of an extraordinary number of plasma cell precursors